

# REMEDIAL SITE ASSESSMENT DECISION - EPA REGION 5

Site Name: Arvin Industries EPA ID#: IND062812870

Alias Site Names: \_\_\_\_\_

City: Indianapolis County or Parish: Marion State: IN

Refer to Report Dated: 4/15/98 Report type: Memo-change qualification PA

Report developed by: IDEM



## DECISION:

- ☒ 1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:
- ☒ 1a. Site does not qualify for further remedial site assessment under CERCLA
- ☐ 1b. Site may qualify for further action, but is deferred to:
- ☒ 1c. Archive
- ☐ 2. Further Assessment Needed Under CERCLA:
- 2a. (optional) Priority: ☐ Higher ☐ Lower
- 2b. Activity Type: ☐ PA ☐ ESI ☐ SI ☐ HRS evaluation
- ☐ Other: \_\_\_\_\_
- No Further Remedial Action Planned (NFRAP)
- RCRA NRC

DISCUSSION/RATIONALE: Site PreScore is < 28.5.

The Marion County Health Dept.

is installing municipal water lines

to residents in the area.

Report Reviewed and Approved by: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Site Decision Made by: \_\_\_\_\_ Signature: J. Pels Date: 5/15/98



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live*

*Frank O'Bannon*  
Governor

*John M. Hamilton*  
Commissioner

100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Telephone 317-232-8603  
Environmental Helpline 1-800-451-6027

April 15, 1998

Ms. Jan Pels, HSE-5J  
Site Assessment Section  
U.S. EPA, Region V  
77 West Jackson Blvd.  
Chicago, Illinois 60604

**RECEIVED**

**APR 28 1998**

**RESPONSE SECTION 3**

Dear Ms. Pels:

Re: Arvin Industries  
Indianapolis, Indiana  
IND062812870  
Marion County

## MEMORANDUM OF DECISION

Arvin Industries assembled tail pipes and mufflers from 1974 to 1988. In December 1988, the facility was sold to Indianapolis Industrial Development #1, Inc. Currently, the north half of the building is being leased to Tractor Supply Company (TSC). TSC is a farm equipment and supply company. TSC is using their portion of building as a retail distribution center.

Due to environmental concerns regarding past activities at the site, Arvin retained the services of ATEC to conduct a subsurface investigation at the site during September 1989. Two (2) underground storage tanks, containing various volatile organic compounds (VOCs), were removed. Several monitoring wells were installed around the plant building. Elevated levels of 1,1,1 trichloroethane and 1,1-dichloroethene were detected in one of the wells. A review of the geology within the immediate area revealed that the groundwater flow from this site is toward the southeast.

A Pre-Score developed for the site by US EPA contractor, <sup>Weston</sup> ~~Ecology and Environment~~ (E&E), revealed that the overall site score is 3.81. A review of the Pre-Score indicates that the site could score significantly higher if VOCs have migrated into the water of numerous residential wells located at the Mars Hill subdivision. The Mars Hill area is currently being sampled by the Marion County Health Department (MCHD). Some very low levels of VOCs

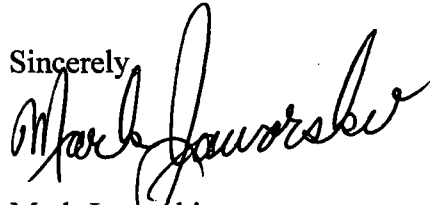
Ms. Pels  
Page two

have been detected in only four (4) residential wells located immediately downgradient from the site. The MCHD is currently addressing the site by installing municipal water lines to the residents in the Mars Hill area.

Using the information gathered by the Marion County Health Department, the site scores 7.40. Due to the fact that the site does not score above the 28.5 cut off and that the site is currently being addressed by the Marion County Health Department, the State recommends that the site should be given a No Further Remediation Action Planned (NFRAP) status.

Should you have any questions or comments regarding the contents of this correspondence, please contact me at 317/ 308-3054.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Jaworski', written over the word 'Sincerely,'.

Mark Jaworski  
Site Investigation Section  
Office of Environmental Response



Roy F. Weston, Inc.  
Suite 400  
3 Hawthorn Parkway  
Vernon Hills, Illinois 60061-1450  
708-918-4000 • Fax 708-918-4055

10 May 1995

Ms. Jan Pels, HSM-5J  
Work Assignment Manager  
U.S. Environmental Protection Agency  
77 West Jackson Blvd.  
Chicago, Illinois 60604

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SITE ASSESSMENT SECTION

U.S. EPA Contact No.: 68-W8-0089  
Work Assignment No.: 45-5JZZ/SSI  
Document Control No.: 4500-45-AKYU  
Subject: Site Information Review & Recommendation  
Arvin Industries, Indianapolis, Indiana  
U.S. EPA ID: IND062812870

Dear Ms. Pels:

WESTON was provided with the site information and PASCORE prepared by the Indiana Department of Environmental Management (IDEM) on 15 March 1993. The Preliminary Assessment and PASCORE was prepared by Mr. Mark Jaworski of IDEM. A Preliminary Hazard Ranking System (HRS) score was developed for the Arvin Industries using the PRESCORE software program (version 3.0) and was utilized in the recommendation.

#### SITE LOCATION

The site, formerly known as Arvin Automotive Industries, lies in an industrial area of Marion County and is located at the northeast corner of Interstate 70 and the Airport Expressway in Indianapolis, Indiana (T15N, R3E, section 24) as shown in Figure 1.

#### SITE DESCRIPTION AND OPERATIONAL HISTORY

The site encompasses approximately 15 acres, of which approximately 4 acres, located on the north, east, and south sectors of the site, are designated parking lot/storage areas. The plant building covers approximately 12 acres and consists of about 4,000 sq. ft. of office space and 484,000 sq. ft. of warehouse space. The northwest corner of the building was used as a processing area for making and/or finishing automotive mufflers. Except for certain areas, the majority of the parking lot areas are paved and appears to have been maintained. The west sector of the facility is grass covered. A north draining diversion ditch along with a billboard are also situated on the western portion of the site. Groundwater monitoring



Ms. Jan Pels, HSM-5J  
U.S. Environmental Protection Agency

-2-

10 May 1995

wells are present along the west and north sectors of the site. These wells were installed during a subsurface investigation at the site by ATEC Environmental Consultants during 1989. No evidence of previous underground storage tank (UST) excavation activity was observed. The subsurface investigation and removal of USTs are briefly discussed under prior investigation.

The facility operated from 1974 to 1988. The property was purchased with an industrial revenue bond in 1974. In December 1988, the facility was sold to Indianapolis Industrial Development #1, Inc. A site visit made in January 1993 indicated that the north half of the facility is being leased to the Tractor Supply Company (TSC). TSC is a farm equipment and supply company and is using the building as a retail distribution center. The east half of the plant building is leased by the State of Indiana and is used as its form department.

### **PRIOR INVESTIGATION**

Two underground storage tanks (USTs) were formerly located near the north side of the building. In April 1986, one 18,000 gallons and one 500 gallons USTs were removed under the supervision of Arvin personnel. The two USTs contained blended solvents primarily mineral spirits, toluene and xylene. The large UST contained raw solvents for use at the facility and the small UST contained waste chemicals from processing area operations. During removal of these USTs, it was observed that these tanks were structurally sound and the soils around the tanks are free of contamination. At the time Arvin Industries operated at the site, septic tanks were used for handling discharges from floor drains. At the time of closing operations at the facility, the septic tanks were cleaned, tops were broken and filled with sand. The relative locations of the former UST tank and septic tank are shown in Figure 2.

Due to environmental contents near UST and septic tank areas, Arvin retained ATEC to conduct a subsurface investigation in these areas during September 1989. Three soil borings in the former UST area, three borings in the former septic tank area and three monitoring wells were installed as shown in Figure 3. Soil samples from the UST area boring were collected 11 to 12.5 feet depth interval for VOC analysis. Soil samples from the septic tank area boring were collected from 11 to 12.5 depth interval in borings B-4 and B-5 and from 13.5 to 15 feet depth interval in boring B-6 and were analyzed for VOCs. Three monitoring wells were installed and screened 7 feet into the water table and 3 feet above the water table. Water level measurements were made prior to sampling. Samples were collected after well development and purging for VOC analysis. The water level measurement indicated that groundwater beneath the site moves in an easterly direction.

Ms. Jan Pels, HSM-5J  
U.S. Environmental Protection Agency

-3-

10 May 1995

The analytical results of soil boring indicated that contamination in the UST area was detected only in boring location B-3. The compounds detected in B-3 are 1,1,1-trichloroethane (29 ug/kg) and tetrachlorethane (27 ug/kg) above the quantitation limit of 7 ug/kg. Only tetrachloroethane was detected in boring B-6 from the septic area at a concentration 7 ug/kg over the quantitation limit of 6 ug/kg. Methylene chloride detected in soil borings from both UST and septic areas was also detected in the method blank and may be a laboratory artifact.

The groundwater sampling from monitoring well indicated the following:

- No VOCs was detected in MW-1.
- 1,1-dichlorethene (49 ug/l and 1,1,1-trichloroethane (1,500 ug/l) were detected in MW-2 above the quantitation limit of 25 ug/l.
- Chloroform (14 ug/l) was detected in MW-3 above the quantitation limit of 5 ug/l.
- Methylene chloride was detected in all wells. It was also detected in the method blanks. Therefore, it may be due to laboratory contamination.

ATEC in their report concluded that MW-2 was upgradient of the site even though it was located close to the UST area. Based on groundwater elevation, MW-1 appears to be the upgradient well. The groundwater sampling appears to indicate that groundwater contamination exists at the site. Arvin Industries has indicated that 1,1,1-trichloroethane was never used at their facility.

### **HRS SCORING**

**Source:** Based on the evaluation of the PA report there are two potential sources at the site. The source areas are:

**Former UST Area:** Two tanks approximately 15,000 gallons and 500 gallons were removed from the northern portion of the site. The HRS usable source is contaminated soil. The soil boring samples taken at a depth of 11-12.5 feet have shown contamination from the storage tank. Based on the locations of these borings, the surface area is estimated to be 1409 ft<sup>2</sup> and the volume of contaminated soil is estimated to be 652 yd<sup>3</sup>.

**Former Septic Tank:** The samples taken in the area of former septic tank area have shown the presence of contamination. Since the liquid wastewater was treated in a septic tank, the



Ms. Jan Pels, HSM-5J  
U.S. Environmental Protection Agency

-4-

10 May 1995

HRS usable source is land treatment. The area of the source based on Figure 2 is approximately 940 square feet.

### Groundwater Pathway

According to the PA, the Urban land-Miami Complex makes up the majority of surface soils on site. The Urban land-Crosby Complex encompasses the west to southern sector of the site property. This soil has virtually the same characteristics as the Urban land-Miami Complex. The unconsolidated material above the bedrock may be described as a sequence of coarse sand and gravel with beds of gravelly silt. Many of the regional till sheets are tight gravel and clay mixtures. The sand and gravel deposits discussed above are used as the drinking water source for private and municipal wells within 4 miles of the site.

According to the investigation conducted by ATEC there is a strong evidence that the shallow aquifer has been impacted by tetrachloroethane, 1,1,1 - TCA and 1,1 - Dichloroethene. Even though methylene chloride was detected in groundwater, it is not considered to be site related contaminant at this time because it is also a common laboratory artifact.

There are two communities, Drexel Gardens and Mars Hill, within 4-miles TDL served by private wells for drinking water supply. The closet private well is located in Drexel Gardens and is approximately 500-feet west of the site. There is one municipal well within 4-mile TDL servicing the area within the town of Speedway. This well field is located approximately 3.5 miles from the site. All other municipal well fields are located outside the 4-mile TDL. The population using groundwater for drinking is approximately 27,582 as shown in Table 1.

Based on the above information, the preliminary HRS score for the groundwater pathway is 7.48.

### Surface Water Pathway

The surface runoff from the site may enter a diversion ditch which runs into a State Ditch. The State Ditch discharges into the White River approximately 2.5 miles south of the site. Both the diversion ditch and the State Ditch are intermittent streams. Therefore, the probable point of entry is into the White River which is greater than 2 miles TDL required for considering surface water pathway. Therefore, a preliminary HRS score for the surface



Ms. Jan Pels, HSM-5J  
U.S. Environmental Protection Agency

-5-

10 May 1995

water pathway cannot be developed because there are no perineal surface water bodies within 2 miles downstream of the site.

Based on the above information the preliminary HRS score for the surface water pathway is 0.00.

#### Soil Exposure Pathway

The site is active and there are approximately 35 workers on site. There is no residential population at the site. A guarded, perimeter fence surrounds the site. The closest resident to the site is approximately 500 feet. As shown on Table 2, there are approximately 1,012 people living within 1-mile of the site. There are no state or federal endangered species known to be present on the site.

Based on the above information, the preliminary HRS score for the soil exposure pathway is 0.20.

#### Air Pathway

No air samples have been collected at the site. There are approximately 119,800 residents within 4-mile of the site as shown in Table 2. There are several endangered species within 4-mile of the site.

Based on the above information, the preliminary HRS score for the air pathway is 1.45.

#### Overall Score

The preliminary overall HRS score for the site, with an observed release to shallow groundwater, prepared using the PRESCORE software program (Version 3), is 3.81. The preliminary HRS scoring summary sheet is provided in Table 3, and the diskette containing the file (file name ARVIN.HRS) is enclosed with this letter. As shown in Table 4, the preliminary HRS score developed using the Prescore software program and the score developed by IDEM using the PASCORE is significantly different for all pathways. This is because in preparation of the PASCORE, IDEM had considered the source as a non-container drums and the volume of the tank was used for waste quantity, which resulted in a higher waste characteristics. However, based on the guidance for the use of waste removal for scoring, the tank that was removed by ATEC cannot be used as a source because the cut-off date (date the WESTON was assigned the SSI) is after the removal of



Ms. Jan Pels, HSM-5J  
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-6-

10 May 1995

the tanks. However, the contaminated soils left in place after tank removal can be used for HRS scoring. Therefore, the waste characteristic determined by WESTON is significantly lower than that determined by IDEM. Furthermore, IDEM has determined the PASCORE for the surface water pathway. As discussed in the surface water pathway above, the perineal surface water body is at distance of greater than 2-miles downstream from the site and cannot be used for developing the prescore.

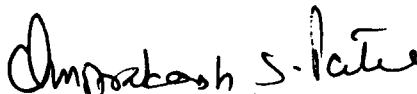
### Recommendation

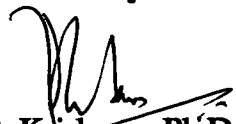
Based on the local groundwater flow determined by ATEC, the municipal well and the residential wells located within 4-mile TDL are upgradient from the site. The preliminary overall HRS score for the site, with an observed release to shallow groundwater, prepared using the PRESCORE software program (Version 3) is 3.81. Since the preliminary HRS score for the site is less than 28.5 required for placement on NPL, the site should be designated as a NFRAP site.

If you have any questions or require clarification, please call.

Very truly yours,

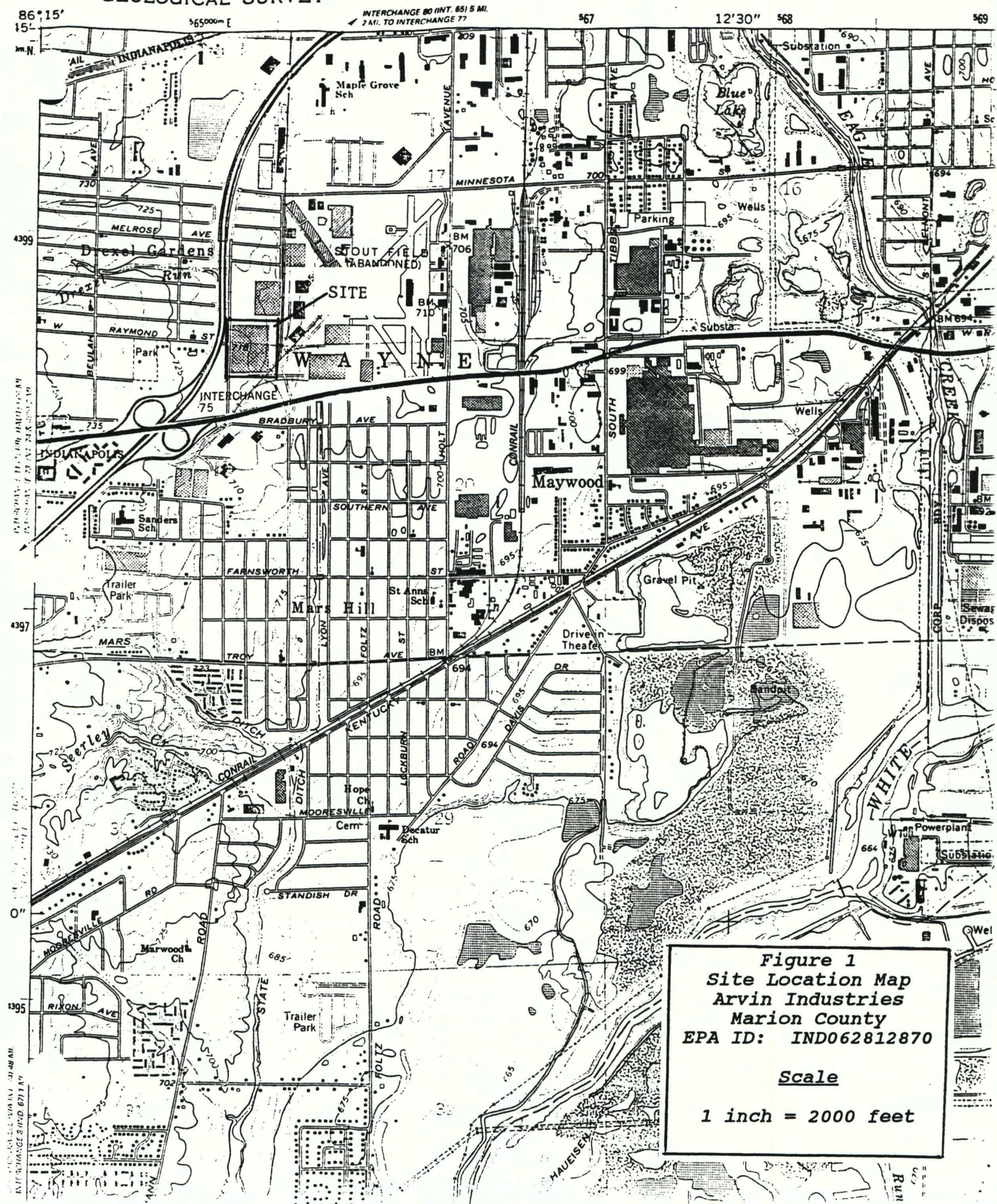
ROY F. WESTON, INC.

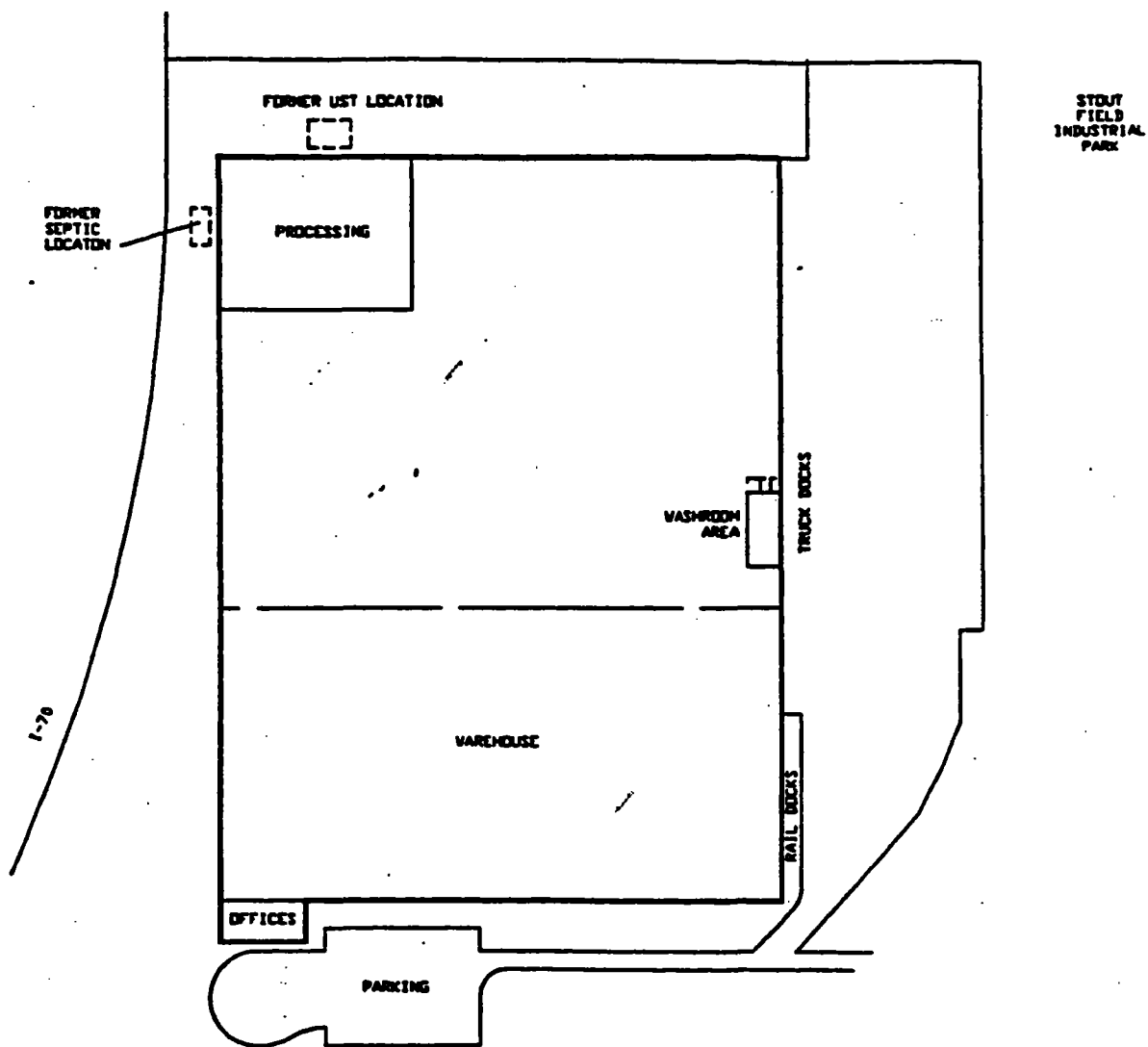
  
Omprakash Patel  
Senior Project Leader

  
P. Krishnan, Ph.D., P.E.  
Site Manager

PK/tms

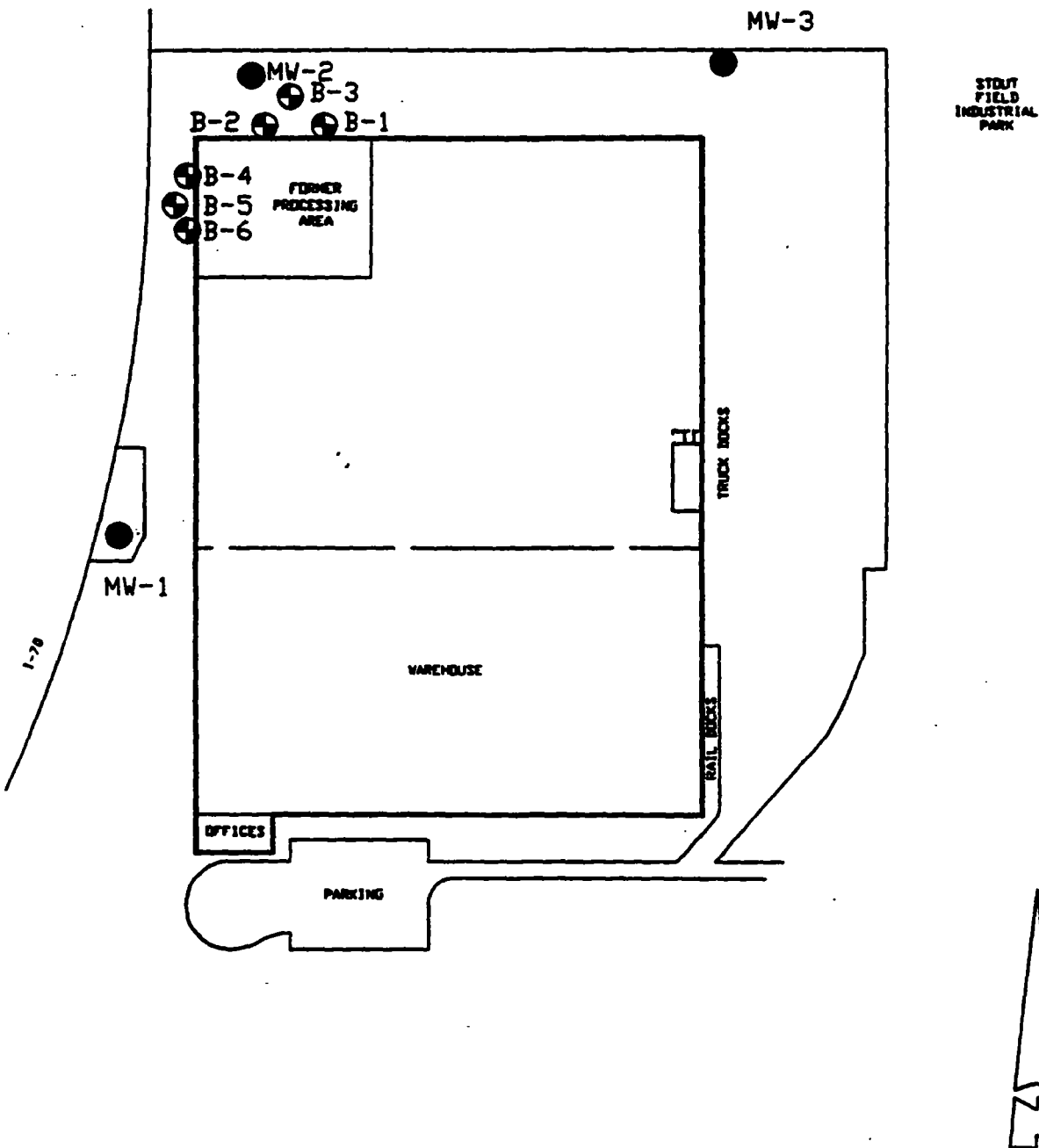
cc: Mr. H. Atkinson, IDEM





**Figure 2**  
**Site Features Map**  
**Arvin Industries**  
**Marion County**  
**EPA ID: IND062812870**

Scale  
1 inch = 200 feet



GROUNDWATER CONTOUR MAP  
SUBSURFACE INVESTIGATION & SAMPLING  
ARVIN INDUSTRIES SITE  
INDIANAPOLIS, IN

PROJECT NO.  
21-97509

SCALE  
1" = 200'

FIGURE NO.  
3



**Table 1**

**Population Using Groundwater  
Arvin Industries  
Indianapolis, Indiana**

<b>Distance Range Miles</b>	<b>Population using Private Wells</b>	<b>Population on Municipal System</b>	<b>Total</b>
0-1/4	10	0	10
1/4-1/2	180	0	180
1/2-1	666	0	666
1-2	726	0	726
2-3	0	0	0
3-4	0	26,000	26,000
<b>Total</b>	<b>1,582</b>	<b>26,000</b>	<b>27,582</b>

**Table 2**

**Population within 4 Miles  
Arvin Industries  
Indianapolis, Indiana**

Distance Range (miles)	Population
0-1/4	72
1/4-1/2	290
1/2-1	650
1-2	17,000
2-3	35,000
3-4	67,000
<b>Total</b>	<b>119,967</b>

Source: Preliminary Assessment, IDEM, 15 March 1993.

Table 3  
PRE score  
Summary Screen

Arvin Industries  
IND062812870

File: ARVIN.HRS

Site Score 3.81

PREscore Version 3.0				
Pathway	Likelihood of Release	Waste Characteristics	Targets	Pathway Score
Groundwater	550	6	1.87E+02	7.48
Drinking Water	250	3	0.00E+00	0.00
Food Chain	250	10	0.00E+00	0.00
Environment	250	10	0.00E+00	0.00
Surface Water		Overland flow		0.00
Resident	550	6	5.00E+00	0.20
Nearby	5	6	1.34E+00	0.00
Soil Exposure				0.20
Air	360	6	5.63E+01	1.47

**Table 4**

**Comparison of HRS Scores by PA Prescore and Prescore Version 3.0  
Arvin Industries  
Indianapolis, Indiana**

<b>Description</b>	<b>PAScore<sup>1</sup></b>	<b>Preliminary HRS Score PRESCORE Version 3.0</b>
<b>Groundwater pathway</b>	<b>58</b>	<b>7.48</b>
<b>Surface water pathway</b>	<b>12</b>	<b>0.00</b>
<b>Soil exposure pathway</b>	<b>8</b>	<b>0.20</b>
<b>Air pathway</b>	<b>9</b>	<b>1.47</b>
<b>Overall score</b>	<b>30</b>	<b>3.81</b>

<sup>1</sup>PAScore developed by IDEM in March 1993.